

# MARCH RACING ACADEMY SPORTS 2000 DURATEC CHAMPIONSHIP SPORTING & TECHNICAL REGULATIONS 2010

## 1. SPORTING REGULATIONS - GENERAL.

### 1.1 TITLE & JURISDICTION:

1.1.1 The March Racing Academy Sports 2000 Duratec Championship is organised and administered by the Sports 2000 Racing Car Club (SRCC) in accordance with the General Regulations the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

1.1.2 The Organisers reserve the right to issue additional statements clarifying items in the rules and regulations, and all such statements will be issued to all registered drivers by posting to the address detailed on the registration form (subject to MSA Regulation [D11.1.3]).

MSA Championship Permit No: CHR2010/067

Race Status: National B.

MSA Championship Grade: C

### 1.2 OFFICIALS:

1.2.1 Co-ordinator: Heidi Williams. 10 Reeves Close, Wheatstone, Leicestershire, LE8 6YG

1.2.2 Eligibility Scrutineers: Neil Procter. Tel: 01732 238341 e-mail: neil.a.procter@ntlworld.com

1.2.3 Championship Stewards: Bob Armstrong, Rick Smith, & Drew Furlong  
In the event of any of the Championship Stewards listed above being unavailable or being unable to consider any particular matter due to a perceived conflict of interest, the organisers reserve the right to appoint an alternative Championship Steward or, if deemed to be necessary, more than one alternative Championship Steward.

1.2.4 Championship Clerk of Course: Barry Ashman. 28 Houting, Dosthill, Tamworth, Staffs, B77 1PA. Phone No (01827) 260408 e-mail midland@brscc.co.uk

### 1.3 COMPETITOR ELIGIBILITY:

1.3.1 Entrants must be fully paid up valid membership card holding members of the SRCC and in possession of valid 2010 MSA Entrants Licences.

1.3.2 Drivers and Entrant Drivers must be fully paid up valid membership card holding members of the SRCC, be registered for the Championship and be in possession of a valid MSA Competition (Racing) National (B) or above licences, or equivalent (MSA Regulation H26.1.5)

A competitor shall not take time off school to participate in motor sport without the prior written approval of their school. If participation in the Championship requires absence from school, Drivers in full time school education are required to have the approval of their head teacher and a letter stating such approval from his/her school in order to fulfil registration for the Championship.

1.3.3 To maintain the 'spirit' of this championship, entries from manufacturers teams will not be accepted and any driver that is deemed as professional, either by way of the MSA definition in relation to competition licensing or in the considered opinion of the SRCC Committee, will not be granted participation to the championship. The SRCC Committee reserves the right to rule on the championship eligibility of drivers, entrants and teams whose participation may have an adverse affect on the current and/or future championships.

1.3.4 The intention of this regulation is to prevent 'professional', semi-professional' and other such drivers being brought in to 'showcase' manufacturers cars as part of a marketing or development exercise.

1.3.5 All necessary documentation must be presented for checking at all rounds when signing-on.

### 1.4 REGISTRATION:

1.4.1 All drivers must register as competitors for the championship by returning the Registration Form with the Registration Fee to the General Secretary (SRCC) prior to the Final Closing date for the first round being entered.

1.4.2 The Registration Fee is £190 made payable to The SRCC.

1.4.3 Registrations will be accepted from Publication of these Regulations until the closing date for the last round of the Championship.

1.4.4 Registration numbers will be the permanent Competition numbers for the Championship.

### 1.5 CHAMPIONSHIP ROUNDS:

The March Racing Academy Sports 2000 Duratec Championship will be contested over 8 rounds at the following venues:

| DATE          | CIRCUIT                                 |
|---------------|---|
| 24/25 April   | Snetterton                              |
| 22/23 May     | Brands Hatch GP                         |
| 5/6 June      | Cadwell Park                            |
| 26 June       | Silverstone                             |
| 31 July       | Oulton Park International               |
| 29 August     | Rockingham                              |
| 1/3 October   | Silverstone GP                          |
| 16/17 October | Brands Hatch Indy Formula Ford Festival |

### 1.6 SCORING:

1.6.1 Points will be only be awarded to Championship Registered Competitors listed as classified finishers in the Final Results as follows: 1st-15; 2nd-14; 3rd-13; 4th-12; 5th-11; 6th-10; 7th-9; 8th-8; 9th-7; 10th-6; 11th-5; 12th-4; 13th-3; 14th-2; 15th- and all other qualifiers-1 point.

1.6.2 The totals from all qualifying rounds run(less 1) will determine the final championship points and positions.

1.6.3 Ties shall be resolved using the formula in MSA Regulation [Q3.4] of the 2010 MSA Yearbook

1.6.4 Should a combined race for the Sports 2000 Duratec and Sports 2000 Championships be run, there will be a single qualifying session, with the single combined grid based on the fastest qualifying times. A single results sheet will be published but points will be awarded separately, in accordance with the individual championship regulations to cars competing in the Duratec Championship and the Sports 2000 Championship. Thus the first car in each class will receive 15 points, the second car in each class 14 points, the third car in each class 13 points and so on

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- 1.6.5 down to 14<sup>th</sup> receiving 2 points with all other qualifiers, 1 point.  
SRCC reserve the right to allow entry of a Celebrity / Development / Guest car at any event. This car and driver(s) will not score points and will not influence the points scoring of championship registered drivers as per 1.6.1, but may be awarded individual race trophies if the finish position merits it.

## 1.7 AWARDS:

- 1.7.1 All awards are to be provided by the Organising Club unless agreed otherwise.
- 1.7.2 Per Round: Garlands to 1<sup>st</sup> in each class. Trophies to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> overall and also in each Class.
- 1.7.3 Championship: Trophies to 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> in each Class.
- 1.7.4 Bonuses: Per Round: Not applicable. Championship: Not applicable.
- 1.7.5 Presentations: Garlands and Trophies are to be provided for presentation at the end of each race or at an end of the meeting presentation ceremony. Competitors shall be obliged to attend all prize giving ceremonies for which the race meeting and championship organisers advising notice of the dates, times and venues for the same in their final instructions or bulletins. Non attendance may result in a forfeit of Awards
- 1.7.6 Entertainment Tax Liability: Not applicable.
- 1.7.7 Title to all Trophies: In the event of any Provisional Results or Championship Tables being revised after any provisional presentations and such revisions affect the distribution of any awards the Competitors concerned must return such awards to the SRCC in good condition within 7days.

## 2 SPORTING REGULATIONS – JUDICIAL PROCEDURES

- 2.1 ROUNDS: In accordance with Section [C] of the 2010 MSA Yearbook.
- 2.2 CHAMPIONSHIP: In accordance with Section [C] of the 2010 MSA Yearbook.

## 3 SPORTING REGULATIONS - CHAMPIONSHIP RACE MEETINGS & RACE PROCEDURES

### 3.1 ENTRIES:

- 3.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fees prior to the entry closing dates as per the entry forms for each round.
- 3.1.2 Incorrect or incomplete entries (including driver to be nominated entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Secretary of the Meeting receives the missing or corrected information or fee.
- 3.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Secretary of the Meeting in writing. If Driver/Vehicle changes are made after the publication of Entry Lists with Final Instructions, the Competitor concerned must apply for approval of acceptance by the Stewards of the Meeting BEFORE Signing-On.
- 3.1.4 The maximum entry fee for each round shall be as per the Supplementary Regulations for each round.
- 3.1.5 The SRCC General Secretary maintains a selection order list. Entries up to the maximum number permitted to practice will be selected according to the list current on the closing day, the selection for the race will be made from these entries in order of receiving them. Any entries in excess of this will be treated as Reserves in order of their standing on the aforementioned list. If on the closing date, entries accepted in accordance with the above have reached or exceeded the maximum number permitted to practice, any further entries will be held in abeyance.
- 3.1.6 Reserves are to be nominated on the Final List of Entries published with the Final Instructions or Amendment Sheet Bulletins. All Reserves will practice and replace withdrawn or retired entries in Reserve Number order irrespective of class subject to the provisions of 3.4. If Reserves are given Grid Places prior to issue of the first Grid Sheets for any round, the times set in Practice shall determine their grid positions. If Reserves are given places after the publication of the grid sheet and prior to cars being collected in the official 'Assembly Area' they will be placed at the rear of the grid and be started without any time delay. Otherwise, they will be held in the Pit lane and be released to start the race after the last car to start the GREEN FLAG LAP or last car to take the start has passed the startline or pit lane exit, whichever is the later. Such approval to start MUST be obtained from the Clerk of the Course.
- 3.2 BRIEFINGS: Organisers should notify Competitors of the times and locations for all briefings in the Final Instructions for the meetings. Competitors must attend all briefings, which are mandatory.
- 3.2.1 The Clerk of the Course may impose a fine as detailed in MSA [Appendix 1 13.6] (ii) on any competitor who fails to attend, or who reports late at, a scheduled driver's briefing.

### 3.3 PRACTICE:

- 3.3.1 The minimum period of practice (timed) to be 30 minutes subject to the provisions of Q4.5. Should any practice session be disrupted, the Clerk of the Course shall not be obliged to resume the session or re-run sessions to achieve the championship criteria and the decision of the Clerk of the Course shall be final.
- 3.3.2 In addition to the requirement of 3.3.1 a mandatory 15 minute untimed practice session will be held.
- 3.3.3 Should the need arise to stop any practice, RED LIGHTS will be switched on at the Start Line and RED FLAGS will be displayed at the Start Line and at all other Marshal signalling points around the circuit. This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and return to the pit lane unless directed by officials, not to do so.
- 3.4 QUALIFICATION: Each driver should complete a minimum of 3 laps practice in the car to be raced and in the correct session in order to qualify for selection and order of precedence as set out in the MSA regulations [Q4.5]. The Clerk of the Course and/or Stewards of the Meeting shall have the right to exclude any driver whose practice times or driving are considered to be unsatisfactory - as per MSA Regulation [Q4.5.3].

### 3.5 RACES:

- 3.5.1 The standard minimum scheduled race distance shall be 30 minutes. Should any race distance be reduced at the discretion of the Clerk of the Course or Stewards of the Meeting, it shall still count as a full points-scoring round.

### 3.6 STARTS:

- 3.6.1 All race start countdowns are to have a minimum elapsed period of 3 minutes from the time all cars are released to form up on the grid to the start of the Green Flag Lap(s) in the formation as specified on the Track Licence for each circuit.
- 3.6.2 The minimum countdown procedures/audible warnings sequence shall be - 1 minute to start of Green Flag/Pace Lap - Start Engines/Clear Grid. 30 seconds-Visible and audible warning for start of Green Flag/Pace Lap.

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- 3.6.3 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- 3.6.4 Any cars removed from the grid after the 1 minute stage or driven into the pits on the Green Flag Lap shall be held in the pit lane and may start the race after the last car to take the start from the grid has passed the startline or pit exit lane whichever is the later.
- 3.6.5 Any drivers unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA regulation [Q12.13.2] and any drivers unable to maintain grid positions on the Green Flag Lap to the extent that ALL other cars are ahead of them, may complete the Green Flag Lap but MUST remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.
- 3.6.6 Excessive weaving to warm-up tyres - using more than 50% of the track width, and falling back in order to accelerate and practice starts, is prohibited.
- 3.6.7 A five second board will be used to indicate that the grid is complete The red lights will be switched on five seconds after the board is withdrawn. All cars will start racing when the red start light(s) are extinguished. In the event of any starting lights failure the Starter will revert to the use of the National flag.
- 3.7 RACE STOPS:**
- 3.7.1 Should the need arise to stop any race, RED LIGHTS will be switched on at the Startline and RED FLAGS will be displayed at the Startline and at all Marshals Signalling Points around the circuit. This is a signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the starting grid area, which will automatically become a Parc Ferme area. Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when a race is stopped.
- 3.7.2 Case A – Less than two laps completed by Race leader.  
The Race will be null and void. The race will restart from the original grid positions. Competitors unable to take the restart may be replaced by reserves who will start from the back of the grid in reserve order. Gaps on the grid should not be closed up. The length of the restarted race will be determined by the Clerk of the Course.
- 3.7.3 Case B – More than two laps completed by Race Leader but less than 75%  
The Race will restart from a grid set out by the finishing order of part one (as per MSA Regulation [Q5.4.2]). The result of the race will be the finishing order at the end of part two. The length of the restarted race will be determined by the Clerk of the Course.
- 3.7.4 If the leader has completed more than 75% of the race distance or duration it shall not be re-started and the results will be declared in accordance with MSA Regulation [Q5.4.3].
- 3.8 RE-SCRUTINY: All vehicles reported involved in contact incidents during races or practice must be re-presented to the Scrutineers before continuing in the races or practice.
- 3.9 PITS AND PITLANE SAFETY:
- 3.9.1 Pits: Entrants must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times.
- 3.9.2 Pitlane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all Drivers to take all due care and drive at minimum speeds in pit lanes.
- 3.9.3 Refuelling: May only be carried out in accordance with the MSA [Q13] Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.
- 3.9.4 There will be a speed limit of 60 kph within the marked pit lane that will be checked by radar. You may be penalised for exceeding that speed.
- 3.10 RACE FINISHES:** After taking the chequered flag drivers are required to: - Progressively and safely slow down, remain behind any competitors ahead of them, return to the Pit lane Entrance/Paddock Entrance as instructed, comply with any directions given by Marshals or Officials and to keep their helmets on and harnesses done up while on the circuit or in the pit lane. NB. After taking the finish all drivers are to take their cars directly to the Scrutineering Bay. The only exception is when they are directed to the award presentation area, by a race official. These cars will be taken directly to the Scrutineering Bay after the presentations without interference from any person. Competitors who fail to comply will be reported to the Clerk of Course.
- 3.11 RESULTS:** All Practice Timesheets, Grid Sheets and Race Results are to be deemed PROVISIONAL until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical procedures.
- 3.12 TIMING MODULES**
- 3.12.1 All competitors are required to purchase and fit an approved Electronic Self Identification Module (transponder) to their cars for the purposes of accurate timing. It is the responsibility of the competitor to fit these to car in the position and manner specified by the supplier/timing Company. The Modules must be in place and functioning correctly for all Championship qualifying practice sessions and races. The setting and servicing of these items must only be carried out by properly authorised MSA licensed Timekeepers. Competitors are liable for any replacement of the Modules, due to misuse or loss.
- 3.12.2 Competitors may not place electronic timing equipment within 5 metres of the official start, finish or any other official timing lines at any event or test session/day. Any such equipment placed within these zones will be removed.
- 3.13 QUALIFICATION RACES:** Not Applicable
- 3.14 OPERATION OF SAFETY CAR:**
- 3.14.1 The Safety Car will be brought into operation and run in accordance with Section Q Appendix 2 of the MSA General Regulations
- 4. CHAMPIONSHIP RACE PENALTIES:**
- 4.1 INFRINGEMENT OF TECHNICAL REGULATIONS:**
- 4.1.1 Arising from post practice Scrutineering or Judicial Action: Minimum Penalty: The provisions of MSA Regulations: [C3.3].
- 4.1.2 Arising from post race Scrutineering or Judicial Action: Minimum Penalty: The provisions of MSA Regulations: [C3.5.1 (a) & (b)].
- 4.1.3 For infringements deemed to be of a more serious nature the Clerk of the Course may invoke the provisions of Regulation C3.5.1 (c)].
- 4.2 INFRINGEMENTS OF NON-TECHNICAL MSA REGULATIONS AND THE SPORTING REGULATIONS ISSUED FOR THE CHAMPIONSHIP:**
- 1) As per 2010 MSA Judicial Procedure Regulations. If excluded the driver shall count that event as one of the point scoring rounds counting to his total championship score.
  - 2) In order to maintain standards of conduct, the Championship Coordinator will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual included on two such reports during one racing season he/she will receive written warning from the Championship Coordinator that his/her driving/behaviour is to be specifically observed at future race meetings. Any adverse reports during this period of observation could result in official MSA action and will result in a Championship Stewards' enquiry, with possible loss of Championship points and refusal of further race entries.

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- 3) The Clerk of the Course and/or Stewards of the Meeting may apply other penalties, such as 'Stop and Go or Drive Through' during races as deemed applicable.

## 5 TECHNICAL REGULATIONS

### 5.1 INTRODUCTION:

The following Technical regulations are set out in accordance with the MSA specified format. Vehicles must be in compliance with MSA General Technical & Safety Regulations as per [J, K & Q] as appropriate. It should be clearly understood that if the following texts do not clearly specify that you can do it you should work on the principle that you cannot. The Eligibility Scrutineer may seal components at any time during the racing season for later inspection. Only cars built from chassis made before July 2001 may deviate from the requirements for driver feet protection of 5.5.2 and a front crash structure specified in 5.5.3. The maximum price for a 'Turnkey' car is £42,000. See 5.18.1 for definitions. The underlying concept of this production engine formula is the determination that the base engine is to be used as received from Ford without additional performance enhancing work. The club's aim is to keep, the cost of engine preparation and engine performance differentials, to the minimum and will maintain the regulations to this end. Therefore, extensive use of dynamometer time and component matching is not allowed for within the regulations. In this way racing versions of the Duratec DHE 420 engines are to be as similar as if they had come down the Ford production line, where world wide legislation already requires the power of every engine made, to be within severely defined limits of the homologated power curve. In the event that a performance disparity is noticed with an engine, then that engine may be sealed and power checked at the competitor's expense as per 5.7 m

- 5.1.1 Scrutineering: The official MSA Eligibility Scrutineer or his appointed deputy will be attending rounds of the championship and he is available to provide advice as well as ensuring that the regulations are strictly enforced to ensure fair play.

### 5.2 GENERAL DESCRIPTION:

The March Racing Academy Sports 2000 Duratec Championship is for competitors participating in open cockpit 2 seater rear engine sports racing car using standard Ford 2000cc, 16 valve (Duratec DHE 420) engine in its 145PS form. Sports 2000 Duratec is a restricted class. Therefore any allowable modifications, changes or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T.** Cars will run in 2 classes: -

#### Class A:

- i) Cars manufactured specifically for first time use in the Sports 2000 Duratec Championship.
- ii) Cars converted from Pinto class only if the exact same model is currently available as specified in i) above.
- iii) Cars converted from Class B where the conversion consists of changes to the manufacturer's original specification to any of the following areas: Chassis. Suspension. Gearbox (except as listed in Class B below).

#### Class B:

- i) Sports 2000 cars converted from the Pinto engine format where the conversion consists of no more than a Duratec engine installation, the addition of a 5<sup>th</sup> gear to the original gearbox case/type (standard 'H' pattern gear change), a brake upgrade and fitting of an aerofoil to meet 5.11 and 5.6 ix of these regulations whilst not meeting Class A regulations in i), ii) and iii) above.

Note that the onus of proof shall be with the competitor/entrant.

### 5.3 SAFETY REQUIREMENTS:

The following Articles of MSA Regulations Section K will apply: - K1 to K1.5.2, K1.6.2, K1.6.4, K1.6.5, K1.6.6, K1.7, K1.8, K2.1, K2.1.3, K2.1.4, K2.1.6 TO K2.1.10, K2.3, K3, K3.1, K3.1.2(a) or K3.1.3, K3.1.6 to K3.5, K5.1, K5.2, K6, K7.1 TO K7.4, K8.1, K8.3, K8.5, K9.1 to K9.3, K10.1 TO K10.4, K11.1 to K11.3, K13, K14.1 to K14.3

### 5.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS:

#### 5.5 CHASSIS:

- 5.5.1 Unrestricted except that the use of carbon fibre composite structural materials is prohibited. No engine oil or water tubes are permitted within the cockpit. The engine will be mounted upright and aligned fore and aft in the chassis.
- 5.5.2 It is the intent of these rules to minimise the use of ground effects to achieve aerodynamic down force on the vehicle.
- i) The chassis and body surfaces, which comprise the underside of the car, shall not deviate from a flat plane by more than 2.5cm or 1". This deviation may not be used to create an aerodynamic device.
  - ii) The underside of the car is defined as being within the reference area as per 5.18.3 d)
  - iii) The underside of the car (ZO plane) must incorporate a rectangular rigid surface of minimum 142.24cm measured across the vehicle by minimum 91.44cm measured along the longitudinal axis of the vehicle, which must extend to the full width of the body.
  - iv) There must be no aerodynamic devices that are considered 'downforce generating' situated in the reference zone defined in 5.18.3 e)
- 5.5.3 The chassis must include an impact-absorbing structure ahead of the front bulkhead of the main structure. This structure must be solidly fixed to the extremities of the bulkhead (i.e. with at least 6 bolts of high quality steel of 6mm minimum core diameter requiring tools for removal). Or it may form part of the chassis structure. It must constitute a box of 30cm minimum length, 15cm minimum rearward height and 400cm<sup>2</sup> minimum total cross section. The construction material must be metallic and it must be designed to give protection to the driver by way of calculated deformation and controlled deceleration in the event of an impact. The manufacturer may be asked to supply information to the eligibility scrutineer (or his representative) to confirm the design calculation and/or any impact testing carried out by an approved test facility. Irrespective of the size of the impact absorbing structure (safety foot box), the maximum total area of access holes allowed in this structure shall be 300 cm<sup>2</sup>. The basic structure is defined as a unit with 5 closed sides, and 1 open side. The access holes dimension quoted apply to any modification to the 5 closed sides.
- 5.5.4 There must be no stressed part (centre spine/chassis divider/stiffening panel) in the longitudinal section of the chassis structure, between the steering wheel and the seat back and inside of the driver/passenger space that exceeds in height, 30cm (11.8") above the lowest point of the chassis, with the exception of the requirements of driver lateral head restraint (5.5.5). (The lowest point of the chassis is described as the underside of the chassis/ZO plane)
- 5.5.5 It is permitted to fit, between the driver/passenger space, a central removable longitudinal support, maximum cross section 750mm<sup>2</sup> only for the purpose of supporting a lateral head restraint. This support must be removable without the use of tools so as not to hinder driver egress.
- 5.5.6 Space for 2 seats shall be provided each of at least 40cm (15.75") width and shall be positioned symmetrically about the vehicle's longitudinal axis. There shall be at least 25cm (9.9") wide foot space for the driver measured at the pedals. The passenger space should provide as much seat space, elbowroom, foot and legroom in terms of length, width and height as that of the driver space. Battery boxes and fire extinguishers are permitted in the passenger seat area.
- 5.5.7 The soles of the feet of the driver, seated in the normal driving position and with his feet on the pedals in the inoperative position, shall not be situated to the fore of a vertical plane passing through the centre line of the front wheels.

#### 5.6 BODYWORK INCLUDING AEROFOILS/SPOILERS.

- i) The body shall provide a cockpit for 2 seats and cover all mechanical components including wheels and suspension members except for the

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- exhaust pipe, induction system and camshaft cover which may protrude through the engine cover.
- ii) The bodywork shall project over the complete wheels in such a way as to cover at least one third of their circumference and their entire width. Reference MSA Regulation [J5.2.6]
  - iii) Between the front and rear axle lines the body shall:
    - a) Maintain over a minimum of 70% of the length of the wheelbase a minimum vertical height (measured from the lowest point of the chassis), of 20cm (7.9") when viewed from the side, and when viewed from above, a minimum body width exceeding the greatest overall width across the tyres less 15cm (5.9").
    - b) There shall be no gap between the main body and the wheel arches.
    - c) The silhouette of the bodywork seen from one side must be identical to the silhouette seen from the other side.
  - iii) The cockpit opening seen in plan view shall be symmetrical about the longitudinal axis of the car and shall be large enough for a horizontal rectangle of 80cm (31.5") by 40cm (15.75") to be passed through with its minor axis aligned with the vehicle's longitudinal axis. Any driver head restraint fitted which is wholly removable without the use of tools, may be so removed before the application of the cockpit opening template.
  - iv) All ducted air for heat exchangers (water/oil) and brakes shall pass through those heat exchangers or onto those brakes.
  - v) Maximum vehicle length forward of the front axle centreline: 91.5cm (36") (including spoilers), the maximum vehicle length rearward of the rear axle centreline: 115cm (45.5") (including aerofoil/spoilers)
  - vi) Spoilers mounted at the front of the vehicle are permitted. Those spoilers may only be adjusted in a horizontal plane.
  - vii) Spoilers mounted at the rear of the vehicle are permitted. Those spoilers may only be adjusted in a plane that is vertical or  $\pm 20^\circ$  of vertical.
  - viii) A rear elevated aerofoil (wing) in the form of SRCC authorised Part number: SRCC-RA1, defined in 5.18.2. must be fitted to all cars.
    - a. The elevated aerofoil (wing) including any end plates, must be mounted so as not to exceed a height of 110cm (43.3") from the ground, measured with driver on board. No part of the wing, wing end plates or mountings shall exceed the maximum vehicle rearward length as stated in 5.6 v).
    - b. The wing support shall be mounted to the gearbox and/or sprung chassis in such a manner as to avoid flexing at speed.
    - c. Wings may be mounted to the bodywork providing there is a metal support structure directly below the mounting points sufficient to carry the loads to the gearbox/sprung chassis. A positive retention system is required on both wing-mounting struts to keep the wing attached to the metal mounting structure in the case of bodywork damage/failure.
    - d. No more than 1° of deflection shall occur when a 10 foot-pound torque is imposed on the wing at 6.35cm (2.5") from the leading edge.
    - e. A Gurney flap, not to exceed 1.9cm (.75") in height may be fitted to the top trailing edge of the wing and mounted at 85° to 95° relative to the local wing surface.
    - f. End plates may be attached to the wing. These end plates, when viewed from above, must fit within a box, which is 2.54cm (1") wide laterally, and 35.5cm (14") long front to back, and must not exceed the maximum bodywork width of the car. Where these end plates are mounted to the bodywork and wing together, any gap between the inner face of the end plate and the outer face (longitudinal) of the wing may be bridged either with round section spacers of not more than 15mm diameter or flat plates of maximum thickness 3mm. The plates must not exceed the end plate length (front to back) and must always be mounted to present the minimum profile when viewed from the front of the car. In other words the plates must be at 0 degrees to the ground plane.
  - ix) Windscreens are optional.

## 5.6.1 Modifications Permitted:

- 1. General: None in contravention of 5.6.2 below.
- 2. Interior: None in contravention of 5.6.2 below.
- 3. Exterior: Spoilers mounted at the rear of the vehicle may include a gurney lip/stiffening fold not exceeding 10mm when viewed from above.
- 4. Silhouette: None in contravention of 5.6.2 below.
- 5. Ground Clearance: Cars must comply with MSA regulation [J5.20.11].

## 5.6.2 Modifications Prohibited:

- 1. General: The body above the chassis level in the region of the cockpit shall not be reinforced in any way that would complicate or hinder the rescue of the driver.
- 2. Interior: No engine oil or water tubes are permitted within the cockpit.
- 3. Exterior: Spoilers shall not contravene the maximum vehicle length as defined in 5.6.v) of these regulations, at any time. No bodywork/diffuser extension of the underside panel or support structure for the floor that may be considered to aid down force, is allowed between the inside faces of the rear wheels from a vertical plane connecting the rear wheel centre points (see 5.18.3.c), to the rear extremity of the car.
- 4. Silhouette: Maximum height with driver on board excluding rear elevated aerofoil (wing), safety rollover bar and mirrors shall not exceed at any time 90cm (35.4") measured from the ground.
- 5. Ground Clearance: See 5.6.1.5 above

## 5.7 ENGINE

Ford 2000cc, 16 Valve (Duratec DHE 420) engine in its 145PS form

- a) Only engines carrying a URN (unique reference number) identifying the SRCC approved supplier together with the supplier's engine serial number are eligible.
- b) Engines will be mounted upright, and aligned fore and aft in the chassis.
- c) The addition of any material, be it metal, plastic, or composite etc. by any means be it welding, bonding, encapsulation or encasement to any component is prohibited. However, specific repair of the mounting points of the cylinder block to the transmission or chassis is allowed, whilst other casting repairs may be allowed with prior written approval of the Eligibility Scrutineer responsible for the Formula.
- d) Water pump and generator drive pulleys and their retention bolts, washers and belts are free.
- e) Mechanical tachometer drives may be fitted.
- f) The use of non-standard replacement fasteners, nuts, bolts, screws, studs and washers which are not connected with, or which do not support, any moving parts of the engine or its compulsorily retained accessories is permitted. Freedom granted to any fastener does not allow for freedom to move items relative to each other. For components that are granted the freedom for the fitment of a key or dowel, then material may be removed to allow the fitting of the key or dowel. Only one hole or keyway per component is allowed.
- g) The use of thread locking compounds is permitted.
- h) Gaskets are free except for the cylinder head, intake and exhaust system gaskets which must be standard Ford manufacture for the engine.
- i) Any process of cleaning may be used on any component providing the surface finish, which must remain standard, is not affected.
- j) Forced induction is prohibited. Ram air effects generated by the forward motion of the car is not considered as forced induction.
- k) The expression "Standard", "Standard production" or similar expression is deemed to imply that the part has been manufactured by Ford, or a Ford Motor Company Ltd. authorised sub contractor, for specific use on a specific model of the vehicle or engine. Consequently for these rules only parts manufactured specifically for the Ford 2000cc, 16 Valve engine (Duratec DHE 420) in its 145PS form, may be used. Any machining marks on cast components resulting from manufacturing procedures will not cause disqualification. Only machining and component preparation carried out by Ford Motor Company Ltd., or by a Ford Motor Company Ltd. authorised sub-contractor is allowed

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unless otherwise specified. Any production deburring or imperfection removal during initial manufacture may not be modified or extended. The Scrutineers decision will be final (based on advice from Ford Manufacturing) if a dispute arises regarding the amount of tool, or other marks that are evident in any particular component.

- l) The exterior surfaces only (of the complete engine assembly) of ferrous parts and the exterior surface of the aluminium cam cover may be protected by paint or similar means. No internal component or surface may be coated by any protective finish. Other Ford produced aluminium components may be protected only on their external surfaces by a transparent clear varnish, or similar. No rework may be carried out on any component unless specifically authorised by the regulations. The engine and associated parts must remain exactly as produced by the Ford Motor Company unless expressly detailed in these regulations. If the regulation allows a change, then that authorisation would allow the change to be carried out. However any statement defining minimum weight or dimensions does not grant permission for rework to obtain these minimum values, unless carried out in accordance with these regulations. Only Ford standard parts (parts manufactured by Ford or a Ford Motor Company authorised sub contractor) specifically for the 2000cc, 145PS version of the Duratec DHE 420 engine can be used in this series. No treatment that alters in any way the surface finish, hardness, or other property of the original production component is allowed. The only exception to this is any deposit derived from the lubrication and combustion processes naturally occurring during the running of the engine. Ford reserve the right to prohibit the use of specific components introduced as Production changes, if in the opinion of the Ford Motor Company Limited, they are deemed to have a performance advantage. If in doubt contact Ford Motorsport or the series scrutineer.
- m) In the interest of equality, any car that is suspected to have a power advantage, will, at the discretion of the series scrutineer have its engine sealed and subsequently will be required to undertake performance testing on Hi-Tech Motorsports rolling road. If the noted power output of the engine, measured at the rear wheels, is in excess of 185 BHP (187.57PS) then the engine in question will be further inspected, by disassembly and/or electronic investigation. If, as a result of this action, the engine is deemed non-conforming, then the provisions of 4.1 'Infringement of Technical Regulations' will apply.

## 5.7.1 Modifications Permitted:

- a) Engine. The only permitted engine is the Ford 2000cc, 16 Valve (Duratec DHE 420) engine in its 145PS form with nominal bore 87.5mm and stroke 83.1mm. Production tolerances are permitted providing the total swept volume does not exceed 2000cc
- b) Inlet Manifold. The Only permitted manifold is SRCC - IM1, defined in 5.18.2. It is not permissible to reshape the manifold internally. The manifold may be machined externally.
- c) Throttle Bodies: The throttle bodies SRCC-TB1 are defined in 5.18.2. The Throttle body housings shall not be modified internally in any way or by any means. The external throttle linkage is free. No other modifications are permitted. Any means of reducing intake air temperature is prohibited. Any form of water injection is prohibited.
- d) Fuel Injectors: The fuel injectors SRCC-FI1 are defined in 5.18.2. No modifications are permitted.
- e) Fuel Injection and Engine management system: The main engine "Electronic Control Unit" (ECU) shall not be modified in any way. It is not permitted to change the strength or form of any of the sensor signals to, or the outputs from, the ECU or the ignition amplifier unit. The only ECU allowed shall be MBE967 with calibration SRCC-CAL1, see 5.18.2. The ECU, and the electronics diagnostic connector, must be positioned in an accessible position, allowing scrutineers free access to it at all times. The engine high-pressure fuel pump(s), and any low-pressure pump(s) must be activated through a relay (Minimum 15 Amp capacity) triggered from the 'Fuel pump relay' pin on the main engine ECU. It is permissible to fit a crankshaft speed sensor if an engine speed signal is not taken from the engine management system for extra instrumentation. The engine ECU and/or ignition amplifier may be exchanged, or electronically interrogated at any time (including the time allocated for practice) upon the request of a designated official from the event organisers and/or the SRCC. The event scrutineers reserve the right to require a competitor to carry an SRCC supplied data logger on the car at any time during the event. The unit to be placed close to the existing diagnostic connector.

## 5.7.2 Exhaust systems: Exhaust systems and manifold are unrestricted but must comply with MSA regulations J5.16.1 to J5.16.6.

## 5.7.3 Cylinder Block

- a) It is permitted, as means of repair, to replace cylinder bores with cast iron cylinder liners, in standard material and to standard dimensions. The liners must remain dry liners. The centre line of the cylinder bores must remain within Ford production tolerance. No offsetting of the cylinder bores is allowed. 'Nicasil' or any other types of bore plating / treatments are prohibited.
- b) Localised machining of the cylinder block is permitted to allow fitting of the dry sump system.
- c) The crankcase breather may be modified, including removal, as long as no air and/or oil escape from this area other than through pipework to a catch tank.
- d) The cylinder block may be machined to maintain deck height whilst respecting 5.7.5 iii)

## 5.7.4 Cylinder Head Including Valves and Valve Gear:

- a) It is permitted, as means of repair, to replace damaged valve guides and valve seats by replacement valve guides and valve seat inserts all to standard dimensions.
- b) No work, which removes, adds, replaces, or transfers material is allowed on the cylinder head with the following exceptions.
  - i) Simple cleaning which does not alter in any way the shape of the component.
  - ii) Minimal material removal from the head face to correct combustion chamber volume and/or reclaim head flatness. No internal rework of any combustion chamber is permitted.
  - iii) Fitting of replacement valve seat insert to a position that replicates the standard closed valve position.
- c) The cam cover assembly cannot be modified or replaced.
- d) All valve train components, other than the valve springs and simple shims under valve springs, may not be modified or replaced. The replacement tappets from Ford are permitted to accommodate valve train wear, but cannot be modified in any way unless to adjust lash length within the standard Ford range. Valve springs are free.
- e) Valves must remain standard, no re-profiling or polishing is permitted. The original 45 degrees (90 degrees included) seat angle must be maintained.

Distance apart at centres (inlet) 37.25+ 0.5 mm.  
Distance apart at centres (exhaust) 36.00+ 0.5 mm.  
Maximum face diameter (inlet) 35.15 mm.  
Maximum face diameter (exhaust) 30.15 mm.  
Overall length (inlet) 103.85 + 0.5 mm.  
Overall length (exhaust) 105.05 + 0.5 mm.  
Standard valve stem seals must be retained.
- f) Valve seat dimensions shall remain standard.

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## 5.7.5 Compression Ratio

- a) The maximum compression ratio will be controlled as follows:
  - i) Minimum combustion volume in the cylinder head (with the race spark plug fitted) = 42cc.
  - ii) Standard Ford cylinder head gasket with a minimum compressed thickness of 0.45 mm, and a minimum diameter of cylinder aperture of 89.00 mm.
  - iii) With the piston at Top Dead Centre, the piston top must remain below the top of the block (deck) by a minimum of 0.375mm (0.015"). The measurement shall be taken from the flat squish deck of the piston (not the concave bowl), to the deck height (top) of the block, without fitment of a head gasket. This measurement shall be taken in 2 positions at the extreme fore and aft of the piston in line with the piston pin. An average of the 2 measurements will be used to determine the actual dimension.
  - iv) The combustion chamber cannot be cleaned of carbon prior to a compression ratio check being undertaken. However, if the measured compression ratio is outside of tolerance, the eligibility scrutineer, at his discretion may allow the combustion chamber and/or piston crown to be de-carbonized in a controlled manner, prior to re-test and calculation. In all cases, this second measurement will be taken and recorded as final.

## 5.7.6 Camshaft

- a) The only permitted camshaft is the standard production camshaft (Part No's:- Inlet 1S7G-6A271-BG; & Exhaust 1S7G-6A272-BG - or subsequent production camshafts conforming to the standard lift data.
- b) The camshaft must remain entirely unmodified. It must be fully manufactured and ground by the Ford Motor Company. It is prohibited to grind from blanks, regrind or re-profile. Only the production surface finish is permitted. Shot peening, shot blasting or polishing are prohibited. It is prohibited to modify the timing slots in the cam ends.
- c) The cam profile is defined by determination of lift against a flat-footed follower at various angles. The angular setting of the camshafts is to be set according to 5.18.3

## 5.7.7 Pistons

- a) Pistons must be standard production pistons (Part No. 1S7G-6110-DE1), unmodified in any way.
- b) All three piston rings must be fitted and piston rings must be standard production items. The minimum weight of the connecting rod and piston assembly shall be 910 gms. (Complete piston with rings and pin, connecting rod and cap with bolts but excluding crankshaft bearings).
- c) The piston cooling oil squirt jets, and the oil feed galleries to them, must be retained and unmodified in any way.

## 5.7.8 Connecting Rods

Connecting rods must be standard (Ford Part No. 1S7G-6200-AG) unmodified in any way. Polishing is prohibited. The minimum weight of the connecting rod and piston assembly shall be 910 gms. (Complete piston with rings and pin, and connecting rod and cap with bolts but excluding crankshaft bearings). Connecting-rod bolts are free.

## 5.7.9 Crankshaft

- a) A standard crankshaft must be used. Polishing is prohibited. Crankshaft minimum weight is 13.6kg (including gearbox spigot bearing). Crankshaft journals must remain within Ford positional tolerances if a repair regrind is carried out.
- b) Crankshaft pulley and damper must be retained. Additional drives to oil pump, alternator etc. may use this pulley, or extra pulleys mounted in front of the crankshaft damper.
- c) It is not permitted to alter the number of bearings or fit bearings of less than standard production width
- d) The crank journals may be reground for reclaim, as long as the minimum crank weight is respected. Standard oversize and undersize bearings are permitted.
- e) The crankshaft timing chain sprocket and front pulley/damper may be fixed to the crankshaft by woodruff key or dowel.

## 5.7.10 Flywheel and Clutch

- a) The flywheel assembly (steel flywheel and ring-gear) must conform to a minimum weight, accept the mandatory clutch assembly and maintain the same outside diameter of the original equipment (including ring-gear) fitted to the Ford 2000cc, 16 Valve (Duratec DHE 420) engine in its 145PS form. For rectification the clutch mating face may be resurfaced provided the minimum weight is respected. No other machining is allowed. It is mandatory to use AP clutch cover plate CP5905-1 with AP clutch driven plate CP5352, CP5351 or CP5354 (see 5.18.2). It is permitted to alter the clutch spline to suit the gearbox. Racing clutches are prohibited
- b) Flywheel bolts are free and locating dowels are permitted.
- c) It is permitted to secure the starter ring to the flywheel.
- d) Flywheel minimum permitted weight = 4.6kg (excluding all flywheel and crankshaft mounting bolts). Flywheel, Clutch Cover plate and driven plate minimum permitted weight = 10.1kg (excluding all flywheel mounting, crankshaft mounting and clutch cover bolts).

## 5.7.11 Lubrication System

- a) The lubrication system, external to the engine, is free. Existing standard production oilways, linings or oil grooves may be enlarged, but no additional ones are permitted. Addition of material to facilitate an increase in oilway size is not permitted, with the exception that the oil lines to the standard oil pump may be modified by the addition of material to allow its use with the free concept dry sump system. Standard bearings (production or production reclaim sizes) must be retained and cannot be modified. Chamfering of the entry/exit holes of oilways is permitted. A dry sump system is mandatory, oil coolers are free. No part of the dry sump equipment may protrude inside the engine cylinder block. The standard engine pressure oil pump may be modified or removed.
- b) No line containing lubricating oil may pass through the cockpit. All lubricating oil lines, which carry oil at a nominal pressure of 1 bar or above, must have a minimum burst pressure of 70 bar (1000psi) and a minimum operating temperature limit of 135°C (250°F). When flexible, these lines must have threaded connectors and an outer braid resistant to abrasion and flame (will not sustain combustion). All other oil and oil vapour containing lines must be made from hose material and fittings that meet the minimum operating temperatures stated above, and have adequate burst strength.

## 5.7.12 Cooling System

- a) A liquid cooling system is mandatory. The standard production water pump must be retained, although through freedom on the drive to the pump, its rotational speed may be changed. The radiator and associated pipes are free.
- b) The water thermostat housing is free, unused car heater connections must be blanked off. It may however be repositioned by the fitment of an extension pipe from the original location to a revised location. The thermostat is free. If the thermostat is removed then the water recirculation pipe should also be blanked off. However if one is fitted it must conform to the following:- The standard production thermostat, or another twin seat thermostat unit working in the same manner as the standard part, but which controls the hot engine water coolant temperature above 70°C only are permitted. The car water circulation concept must be retained, and NO water bypass pipes or air bleed

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pipes are allowed which interfere with the design principle of the production thermostat. It is strongly recommended that the thermostat is retained when racing in cool conditions.

- c) The radiator, if housed in or incorporating a cool air scoop or deflector, must comply with bodywork regulations.

## 5.7.13 Fuel System

- a) A high-pressure fuel pump and fuel filter assembly (maximum volume 0.5 litre) must be mounted within the area defined by the chassis rails and not directly in the cockpit area.
- b) The fuel pressure in the engine fuel injector rail is free.
- c) It is permitted to fit a low-pressure fuel pump and fuel collector (maximum volume 1 litre) prior to the high-pressure fuel pump. This must be mounted within the area defined by the chassis rails and not directly in the cockpit area.
- d) The fuel rail is free.
- e) All lines containing petroleum spirit must be fitted in such a way that any leakage cannot result in the accumulation of fluid in the cockpit. When flexible, all high-pressure lines must have threaded connectors and an outer braid, which is resistant to abrasion and flame. All high-pressure fuel lines must have a minimum burst pressure of 41 bar at the minimum operating temperature limit of 135 degrees centigrade. To facilitate the repeated fitting of screwed connectors for the aluminium fuel rail it will be permitted to have short adaptor hoses (to the same specification) between the engine and chassis system. Fuel cooling radiators are permitted, within safety regulations, but must be mounted within the main chassis frame. Fuel cooling may only employ air at ambient temperature as the cooling medium, and fan assistance is not allowed.

## 5.7.14 Electrical System

- a) Sparking plugs are free, provided they fit the engine without any modification to the cylinder head or the sparking plug and that the sparking plugs place the spark gap in the same position as the production sparking plug within the combustion chamber.
- b) The coil unit may be repositioned, but the existing HT leads to the sparking plugs must be retained without modification.
- c) It is prohibited to use any other method or component to trigger, distribute or time the ignition or injection.
- d) The engine management wiring loom is free, however an approved loom, part number, SRCC-WL1 (see 5.18.2) is available. Any loom used must not alter the normal electrical characteristics of the inputs, outputs or sensors in any way.
- e) A 12 Volt (nominal) alternator must be fitted. The alternator may be driven from either the engine or transmission. The alternator shall at all times provide an output capable of maintaining a correct level of charge in the storage battery. The installation shall ensure that this output is available at all times whilst the car is circulating on the racetrack.

## 5.8 SUSPENSION

- 5.8.1 All cars shall be fitted with sprung suspension between the wheels and the chassis. Suspension must be controlled to avoid fouling of wheels on chassis or bodywork. The springing medium must not consist solely of bolts located through flexible bushes or mountings.
- 5.8.2 All parts shall be of steel or ferrous material with the exception of hubs, hub adapters, hub carriers, uprights, bearings and bushes, bell-cranks, pivot blocks and bushes, spring caps, abutment nuts and anti-roll bar links. Springs, steel only. It is not permitted to control body roll with additional shock absorbers.
- 5.8.3 The shock absorber casing is free. They can be ferrous or light alloy units and separate reservoirs for fluid and/or gas are permitted. The shock absorber casing is defined as the item which contains the piston, fluid/gas, and moving parts which control the damping action. Any form of active damping is prohibited. Any method of altering the damper performance by the driver whilst seated in the car is prohibited.
- 5.8.4 Anti-roll bars for front and/or rear suspension may be capable of manual, mechanical adjustment by the driver when seated in the car.
- 5.8.5 Permitted Deviations:  
None
- 5.8.6 Prohibited Modifications:
  - a) Titanium is prohibited.
  - b) Chromium plating of any steel suspension part is forbidden.
  - c) Active suspensions are prohibited, as is any system that allows control of the main suspension spring rate, shock absorption and ride height when the car is moving.
  - d) Multiple adjustable (more than 2 way) shock absorbers are not permitted.

## 5.9 TRANSMISSIONS

- 5.9.1 Permitted Modifications:
  - a) Rear wheel drive only is permitted.
  - b) The gearbox shall include an operable reverse gear capable of being engaged by the driver while normally seated and contain not more than 5 forward gears.
  - c) The gear ratios and final drive ratio are unrestricted.
  - d) It is permissible to use a sequential change gearbox in Class A only.
- 5.9.2 Prohibited Modifications:
  - a) The differential cannot be modified in any way to limit its normal function.
  - b) Torque biasing, limited slip and locked differentials are prohibited.
  - c) Excessive shimming of the differential is prohibited.
  - d) Non-ferrous differential components are prohibited.
  - e) Electronic assisted gear change mechanisms, paddle change systems and electronically controlled differentials are prohibited.
  - f) The use of automatic gearbox/gearbox operation is prohibited.
  - g) Any method of providing traction and/or launch control, however derived (apart from direct driver input), is prohibited.

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## 5.10 ELECTRICS

5.10.1 Exterior Lighting: At least one brake-light of minimum 21 watts rating (or equivalent) and one rear warning light shall be operable and visible from the rear of the car. The rear warning light shall meet the requirements of MSA regulation [K5.1 & K5.2]. There shall be a minimum gap of 5cm between the brake light and rear warning light, when viewed from the rear of the car.

5.10.2 An onboard battery and driver operated onboard engine self-starter is mandatory.

## 5.11 BRAKES

- a) Only one caliper per wheel is permitted.
- b) A maximum of 4 (four) pistons per caliper are permitted.
- c) Cooling of the calipers shall be by way of direct radiation of heat, from the caliper surface to the airstream.
- d) Ducting to provide airflow to the caliper, created by the forward motion of the car is permitted. All other methods of cooling are prohibited.
- e) The calipers used shall be available to all, and be as shown in the caliper manufacturers current catalogue.
- f) The main caliper body material may only be of a homogenous material, i.e. iron, steel or aluminium alloy.

5.11.1 Permitted Modifications:

None

5.11.2 Prohibited Modifications:

No other material than iron or steel is permitted for brake discs.

## 5.12 WHEELS/STEERING

5.12.1 Permitted options:

Unrestricted apart from 5.12.2 below.

5.12.2 Prohibited options:

Rear wheel steering is prohibited.

5.12.3 Construction & materials:

- a) Steering: Material must be metal, with the exception of bushes, seals gaiters and dust covers
- b) Wheels: Material is unrestricted providing it is metal.

5.12.4 Dimensions:

- a) Wheels: 13" diameter wheels with front rim width of 6" and rear rim width of 8" are the only wheel sizes permitted

## 5.13 TYRES

5.13.1 Specifications: Front: 160/515/13. Code N2284 or code 811 (slick) and code 829 (wet), Rear: 200/550/13. Code N 2285 or code 810 (slick) and code 830 (wet). The use of un-cut wets is prohibited. NOTE: The 811 and 810 Yokohama slick tyre has been replaced by the N2284 and N2285 tyre.

5.13.2 Nominated Manufacturers: The only permitted tyres are YOKOHAMA

5.13.3 Proprietary Tyre Softening compounds and any other similar additive or treatment, designed to improve the performance of the tyre are prohibited. Any competitor found to be in breach of this regulation will be excluded from the championship.

## 5.14 WEIGHTS

5.14.1 Minimum weight must be the weight of the car in the condition at which it crosses the finishing line, or at any time during the competition and/or practice. 515kg without the driver. No allowance given for topping-up of fluids

## 5.15 FUEL TANK

5.15.1 Fuel cells shall be isolated by means of bulkheads and be vented in case of spillage, leakage, or a failure of the cell such that fuel and fumes will not pass into the driver or engine compartment or around any part of the exhaust system. There shall be a liquid tight and fireproof bulkhead separating the fuel tanks from the cockpit. Metal tanks may be used if covered externally with a fireproof coating and are mounted within the main chassis structure.

5.15.2 Locations: Free within MSA regulations.

5.15.3 Fuel: Only pump fuel as defined in MSA Regulations Section B Nomenclature and Definitions [see Pump Fuel (a)] may be used. The use of power boosting or octane boosting additives by competitors in any fuel is prohibited.

## 5.16 SILENCING

5.16.1 Specification: As per MSA regulations [J5.17.1, J5.17.2, J5.17.7, J5.17.8 J5.18.1 to J5.18.5, J5.18.7 to J5.18.11 ].

## 5.17 NUMBERS AND CHAMPIONSHIP DECALS

5.17.1 Competition numbers and backgrounds shall be displayed in accordance with the requirements of the Championship Organisers and MSA regulations. The numbers and backgrounds shall be of regulation size with number backgrounds conforming to the following colours: Class A: White with black numbers. Class B: Black with white numbers. Black backgrounds must be of the exact shade available from the Championship Organisers. SRCC, Yokohama and sponsor decals must be affixed on both sides of the vehicle; failure to comply will render the car ineligible.

5.17.2 Suppliers: Class distinction backgrounds, club and sponsor's decals will be available at each round.

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## 5.18 TECHNICAL APPENDIX

### 5.18.1 DEFINITIONS

'Turnkey Car' Maximum Price £42000 (VAT Exclusive)

'Turnkey Car': A pre assembled, 2 seat sports racing car manufactured for first time use, to meet the technical regulations of the March Racing Academy Sports 2000 Duratec Championship and all relevant sections of the MSA Blue Book, complete and ready to pass technical scrutineering and compete.

The basic specification of the 'Turnkey Car' must be lodged with, and approved by the technical committee of the SRCC, who will record and hold this information for future reference. However, it is permissible to offer to the customer, at the time of order and at their own cost, upgrades and additions over and above this basic specification, in certain areas. It is mandatory that these upgrades and additions are not performance enhancing with the exception of instrumentation, where, data logging, although seen as having a primary role of performance improvement, is permissible within this ruling. In all cases, the decision as to whether an item is 'performance enhancing' will be made, following consideration, by the Technical Committee of the SRCC and their decision will be final.

The following areas are the only ones permissible to be considered with regard to upgrades and additions:

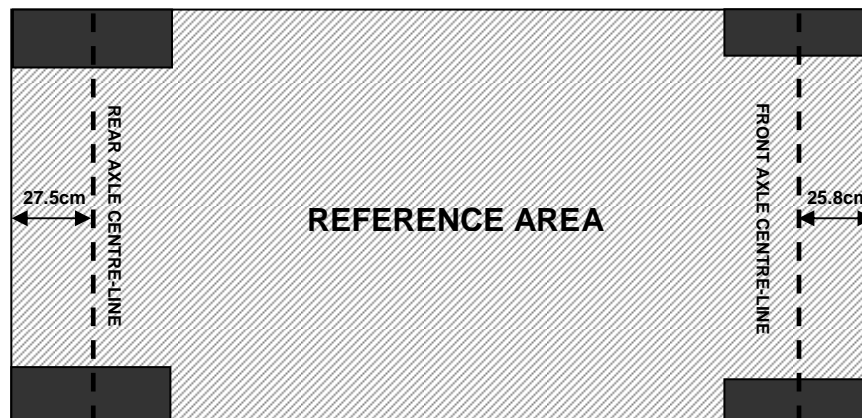
- i) Instrumentation
- ii) Bodywork
- iii) Safety Equipment
- iv) Wheels

### 5.18.2 SRCC CONTROLLED PARTS

| PART                   | PART NUMBER | INFORMATION  |
|------------------------|-------------|--|
| a) Inlet Manifold      | SRCC-IM1    | Manufactured either by Scholar Race Engines (Part No.) or Jenvey Dynamics (Part no. MF09)                      |
| b) Throttle Body (4)   | SRCC-TB1    | Separate 45mm parallel bodies produced by Jenvey Dynamics (Part no. SF45/0/0)                                  |
| c) Air Horn (4)        | SRCC-AH1    | 40mm deep to suit 45mm Throttle Bodies. Produced by Jenvey Dynamics (part no. AH45x40)                         |
| d) Fuel Injector (4)   | SRCC-FI1    | Produced by Magneti Marelli (part no. 214300501011) Additionally marked "IW 058",                              |
| e) ECU                 | MBE967      | Produced, calibrated and programmed by MBE Systems (or their designated agent), with calibration to SRCC-CAL1. |
| f) Clutch Cover Plate  | CP5905-1    | Manufactured by AP Racing. No modifications permitted  |
| g) Clutch Driven Plate | CP5352      | Manufactured by AP Racing. No modifications permitted  |
| Alternate Driven Plate | CP5351      | Manufactured by AP Racing. No modifications permitted  |
| Alternate Driven Plate | CP5354      | Manufactured by AP Racing. No modifications permitted  |
| h) Wiring Loom         | SRCC-WL1    | Approved engine management wiring harness manufactured by GRW Motorsport.                                      |
| i) Rear Aerofoil       | SRCC-RA1    | Approved rear wing manufactured by Andream (01953 885775). No modification permitted                           |

### 5.18.3 TECHNICAL INFORMATION AND DRAWINGS

| ITEM                        | INFORMATION  |
|-----------------------------|--|
| a) Crank Sensor             | Ford o.e. item positioned using Ford alignment gauge part no.1S7F 6D313 AA with engine at TDC no.1 cylinder. set using Ford timing pin tool no.303-507 and crank pulley position checked by insertion of M6 bolt through checking hole in pulley into threaded hole in timing cover. |
| b) Camshaft Setting         | Camshaft angular position/timing is set in relation to crank position using Ford cam alignment tool no.303-376 and timing pin (TDC) tool no.303-507.   |
| c) Rear wheel centre points | The centre of the axis, about which the rear wheels rotate, while the vehicle is travelling in a forward or rearwards direction.   |
| d) Reference Area           | The complete area situated between a vertical and transversal plane 25.8cm forward of the front axle centre-line and a vertical and transversal plane 27.5cm rearward of the rear axle centre-line and across the outside of the front and rear rims.                                |



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## e) Reference Zone

An imaginary rectangular box situated between a vertical and transversal plane 25.8cm forward of the front axle centre-line and a vertical and transversal plane 115cm rearward of the rear axle centre-line, across the outside of the front and rear rims and to a height of 25.0cm above the ground plane, with the car at normal ride height.



## 6 APPENDICES

### 6.1 Race Organising Clubs & Contacts:

#### **Sports 2000 Racing Car Club**

51 London Lane,  
Bromley,  
Kent  
BR1 4HB  
Tel: 0208 460 3511 (eves)  
Tel: 01707 358666 (days)

#### **BRSCC HQ**

Homesdale Business Centre  
Platt Industrial Estate  
Borough Green  
Kent  
TN15 8JL  
Tel: 01732 780100 Fax: 01732 885783

### 6.2 Commercial Undertakings:

6.2.1 Vehicle Presentation: The presentation of the car is fundamental to the profile of the championship/series its sponsors and its audience. Therefore in considering whether to permit any car to race, and any point during the season, the organisers will regard as paramount the presentation of the car. In taking into account its appearance inherent in which is the standard of its presentation (including interior) they may exclude any car, which they consider may prejudice the reputation of the championship/series, or is otherwise unacceptable. This will include where the car is presented at a race event bearing accident damage sustained at a previous event and which has not been subject to the completion of an acceptable repair. Note: A Double Header can be regarded as one event for the purpose of this regulation.

6.2.2 All competitors will park in a neat and tidy manner only in the areas allocated to them by the Race Organisers and will keep these areas clean and tidy at all times. Any competitor failing to obey the instructions of the Organisers or an Official of the Meeting in these matters, in regard to their location, amount of space utilised or manner in which it is utilised, may be reported to the Clerk of Course who may impose any penalty considered appropriate.